

ABSTRACT OF THE DISCLOSURE

A magnetic fluid detecting apparatus for identifying sentinel lymph nodes comprises a probe, which can be inserted into the body cavity, including an exciting magnet and magnetic sensors within the tip side thereof, and a control device, connected to the probe through a connecting cable, for controlling the probe. With the probe, the exciting magnet and the magnetic sensors are vibrated in the longitudinal direction by an actuator so as to modulate the local magnetic field due to magnetic fluid excited by the exciting magnet, the distortion of the local magnetic field distribution (the change in the magnetic flux density) is detected by the two magnetic sensors, the difference between the outputs from the two magnetic sensors is obtained and subjected to demodulation, and accordingly, the magnetic noise other than the modulation frequency from the terrestrial magnetism or other electric devices is removed, thereby detecting magnetic fluid and identifying sentinel lymph nodes.